

eSmart3 series is the third generation of eSmart mppt controller, based on eSmart1, eSmart2 series mppt controller.



**MPPT Solar Controller**  
**12V24V36V48 50A-60A**





## MPPT Solar Controller 12V24V36V48 50A-60A



### Features

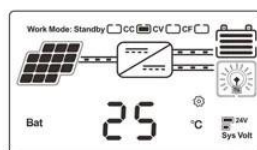
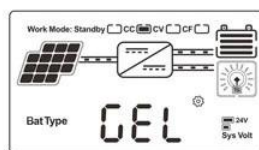
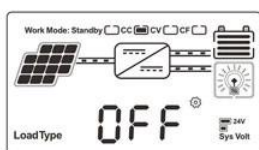
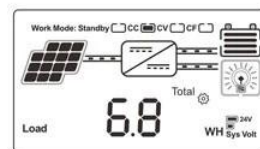
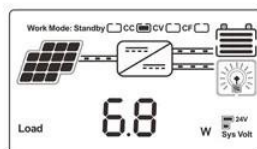
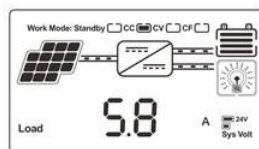
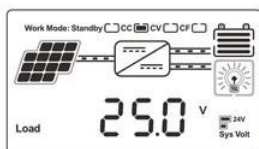
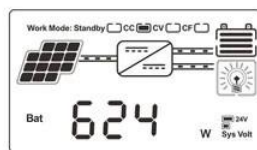
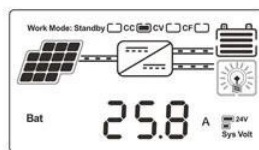
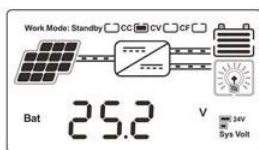
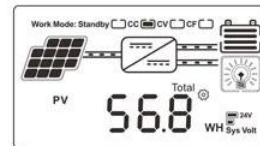
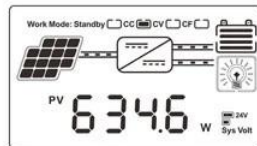
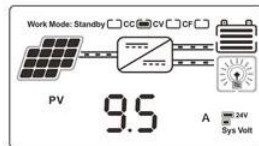
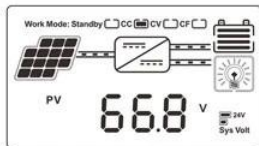
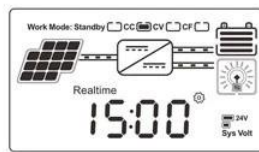
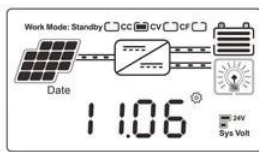
- 1.It has an efficient MPPT algorithm, MPPT efficiency  $\geq 99.5\%$  and converter efficiency up to 98%.
- 2.Charge mode: three stages (constant current, constant voltage, floating charge), it prolongs service life of the batteries.
- 3.Four types of load mode selection: ON/OFF, PV voltage control, Dual Time control, PV+Time control .
- 4.Battery system voltage automatic recognition.
- 5.Three kinds of commonly lead-acid battery (Seal\Gel\Flooded)types,parameter settings can be selected by the user,and the user can also self-defined some parameters for other battery type.
- 6.It has a current limiting charging function. When the power of PV is too large, the controller automatically keeps its Mat rated charging power, and the charging current will not exceed the rated value.
- 7.High definition LCD display function to check the device running data and working status, also can support modify the controller display parameter.
- 8.RS485 communication, we can offer communication protocol to convenient user's integrated management and secondary development.
- 9.Support PC software monitoring and WiFi module to realize APP cloud monitoring.
- 10.CE, RoHS, FCC certifications approved, we can assist clients to pass various certifications.
- 11.Two years warranty, and 2~10 years extended warranty service also can be provided.

### MPPT Controller connection diagram

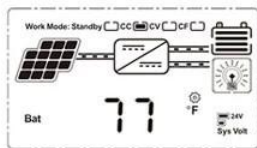
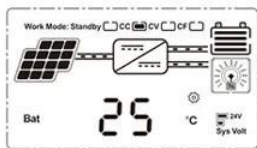
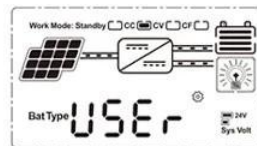
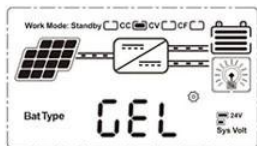
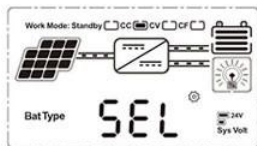
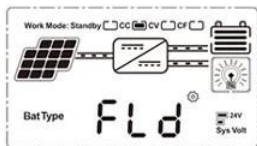
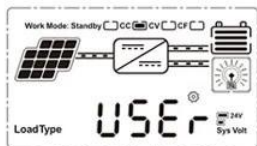
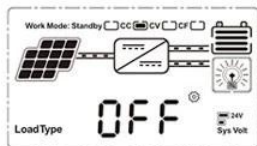
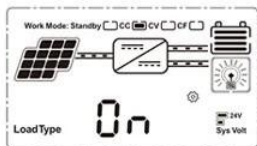
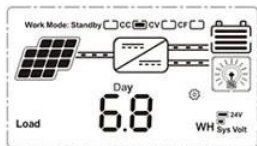
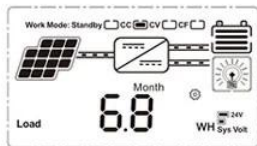
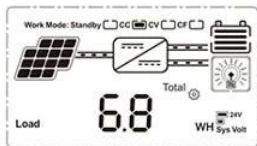
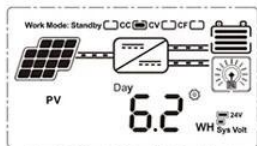
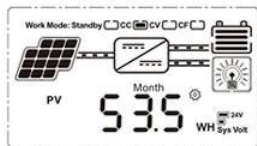
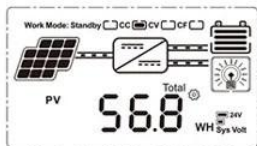
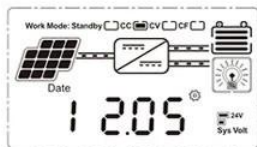
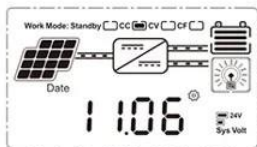
# Off Grid Solar System CPU



## Parameters Display & Setting information



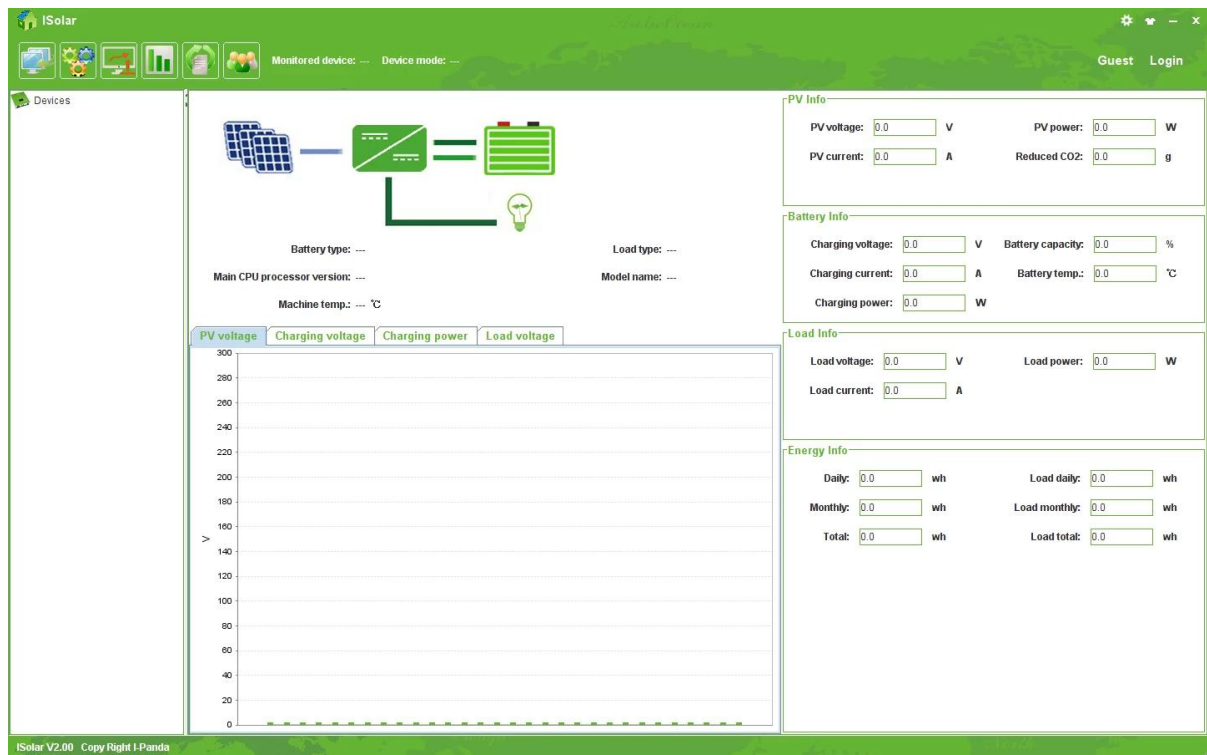
LCD display information



On	Mean "ON"	FLD	Mean "FLD"
OFF	Mean "OFF"	GEL	Mean "GEL"
USER	Mean "USER"	SEL	Mean "SEL"

Set the battery type and LOAD control mode

## Set the battery type and LOAD control mode



PC software\_SolarEagle

Visual display of charge and discharge status, PV voltage, charge voltage, charge current, and can set the battery type, LOAD output control;

## Parameter

eSmart3 series		20A	30A	40A	50A	60A	
Product category	Controller Properties		MPPT (maximum power point tracking)				
	MPPT efficiency		≥99.5%				
	Standby power		0.5W~1.2W				
	System voltage		Automatic recognition				
	Heat dissipation method		Intelligent fan cooling				
Input	Max.PV input voltage(VOC)		DC150V				
	Start the charge voltage point		Battery voltage + 3V				
	Low input voltage protection point		Battery voltage + 2V				
	Over voltage protection point		DC150V				
	Rated PV power		12V system 24V system 36V system 48V system	260W 520W 780W 1040W	390W 780W 1170W 1560W	520W 1040W 1560W 2080W	650W 1300W 1950W 2600W
Charge Characteristics	Selectable Battery Types (Default Gel battery)		Sealed lead acid, Gel battery, Flooded (Other types of the batteries also can be defined)				
	Charge rated current		20A	30A	40A	50A	60A
	charging method		3-Stage: constant current(fast charging)-constant voltage-floating charge				
LOAD Characteristics	Load voltage		The same as the battery voltage				
	Load rated current		40A				
Display & Communication	Load control mode		On/Off mode, PV voltage control mode, Dual-time control mode, PV + Time control mode				
	Display mode		High-definition LCD segment code backlight display				
Other Parameters	Communication mode		8-pin RJ45 port/RS485/support PC software monitoring/support WiFi module to realize APP cloud monitoring				
	Protect function		Input-output over \ under voltage protection, Prevention of connection reverse protection,battery shedding protection etc.				
	Operation Temperature		-20℃~+50℃				
	Storage Temperature		-40℃~+75℃				
	IP(Ingress protection)		IP21				